INTERACTION OF STEEL JACKET PLATFORM WITH SURROUNDING SOIL.

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Abstract: Offshore platforms have been developed in a variety of sizes, configurations and degrees of complexity, and there exists no unified procedure for their design and analysis. The purpose of this investigation was to study the behavior of a fixed offshore jacket platform subjected to wind and wave loading. The purpose of this study was to present a methodology for performing analysis of the complete structure-pile-soil system; to demonstrate its application; and to compare the results obtained in this integrated analysis to those found by means of a conventional analysis procedure. This study also presents a methodology, based on the finite element method, for developing lateral soil resistance-pile displacement relationships for a single pile subjected to cyclic lateral loading. Undrained soil strengths were used in conjunction with the total stress analysis.